System for Accessing Garden Entries (SAGE)

Procedure Manual

University of California Botanical Garden at Berkeley

Basic features of the SAGE system include the “buttons” across the top of each screen. These can be selected with the mouse or by their corresponding function keys: **Find (F1)**, **Add (F3)**, **Update (F5)**, **Delete (F7)**, **Clear (F9)** and **Done (F11).**

Clicking inside any field with text will place the cursor at the end of the text line. The cursor can then be moved anywhere in the field with a second click. The backspace key can be used to delete one or more characters to the left of the cursor. Using the “Delete” key will erase the entire contents of the field.

Copying and pasting text can be achieved by dragging the cursor over the desired text, moving the cursor to the desired insertion point, and clicking right & left mouse buttons simultaneously. This is especially helpful when opening multiple windows with the same accession record, or with a taxonomic name.

Several windows can be open at the same time. Click on the window you wish to access to make it active.

Data controls: The fields with a red border must have an entry before you can add or make changes to the record in the window.

Hint: If a search is taking too long, click on the computer icon to abort. If that doesn’t work, click on Done.

New Accessions

To add a new accession successfully, all parts of the accession must be entered in their appropriate windows in SAGE. Data in the fields must be consistent with their related data tables. These fields include “requested by”, “taxon”, “collector”, and “accession notes”. New accessions default to nursery (NURS) in the *Current Location* window. The nursery section must be entered for each new accession. (See Current Location)

Hint – you do not have to enter the entire name in taxon field. Enter the genus with “%” and all the rest of the accession data. Click **Add (F3)** and you will get a pop-up window from which you can select the desired taxon name. If the desired name is not in the system, follow the steps under “taxonomy tasks” below.

Hint – when adding a series of new accessions from the same source, etc. you can **Add (F3)** one, and then just change the accession number and other fields that might be different and then **Add (F3)** again. In other words, you do not have to **Clear (F9)** between adding each accession.

To Add a New Accession

Add source information

"Requested by" refers to the tables of Person and Requested By
The name in the Requested By field must be first name, last name and be entered in the *Person, Person Name* and *Person Name Role* windows. This name format is known as the alias. In addition, all requestors should be linked to an organization. (**see Person, Group, Organization Tasks**)

Add taxon name. If the taxon is not in SAGE, add it. (**see Taxonomy Tasks**) If the plant is a hybrid and both parents are known, add the genus name in the taxon field and the complete female hybrid parent and male hybrid parent names in the appropriate fields. An "aff." name is done the same way. Add the genus name to the taxon field and the complete taxon name in the affinity field.

Add **collector**.

To add a collector, start with the *Collector* window. The *Accession* window points there. If you change a collector's name in the *Accession* window, it will point to that name in *Collector*.
If you search on %Raiche%, it will give Raiche in any position in *Collector*

date: month/day/year (1/14/2007)

accesson notes: Add all of the data here except county, prov., etc. and country. This field is used in the voucher label part of SAGE. Country & prov, etc. will be picked up for the labels from the collection site window.

Indicate type of material, data quality, rare status (there must be a corresponding record in the Plant Attributes window for the taxon).

Then go to **Collection Site** by clicking the button at the top of the accession window.

Enter the county or province with % in the geographic location. If the geographic location is not in SAGE, add it to Verified Geographic Name making sure that the term is in the Geographic Name Element part of SAGE. Add information to the appropriate fields by highlighting from the accession window and pasting into the collection site window. Fields should not begin with a capital or end with a period. Click update.

Go back to the accession widow and click the current location button and add the nursery section to which the plant is assigned.

<u>Taxonomy Tasks</u>

Each element of the taxonomic name must be entered in the *Taxonomic Name Element* window as either a bioname or common name.

Verified Taxonomic Name window is where each element of the name is linked together. Enter the genus name in the Parent Taxon field with a "%" and **Find (F1)** to determine which species names are in SAGE. If the genus is there, the family name will appear in the Parent Taxon field. This feature can also be used for looking up a family name for a genus.

To add a new genus, enter the family name in Parent Taxon, the genus in the Bioname Element, 'gen' in Rank, and click the "hybrid" (to indicate "no") and "restricted" fields (as appropriate) at the bottom of the screen. Be sure to check Valid Catalog Term or the name can not beused. Process as an **Add (F3).**

To add a species name, first check to be sure the species is not in SAGE *(Verified Taxonomic Name*—you can do this by entering genus% and checking the returned list of species). Enter the genus in Parent Taxon, specific epithet name in Bioname Element, sp (no period) in Rank, click hybrid (to indicate "no") and "restricted" fields (as appropriate) at the bottom and process as an **Add (F3).**

Do the same for cv names.

Check the rarity of the new taxon and add to the Plant Attributes window.

<u>For</u> California taxa, enter CNPS category as well as IUCN category. If a taxon is listed only in the IUCN list and not CNPS, do not enter the IUCN information. This will prevent a red dot from showing up for taxa not listed by CNPS.

For taxa other than California, if the most recent IUCN Red List category has been downlisted to either LR (lc) or LC which do not require a red dot, then delete the earlier cataory and remove the flag from the plant status box in the Accession window.

Enter the category only from the most recent IUCN list.

You are then ready to add the new accession.

All collector names must be entered in the collector window.-
All Kew author's names are in the *Person or Group*, windows. Add new authors (not in KEW) to the *Person*, *Person Name* (with preferred name form), and *Person Name Role* (use kewabbr as name type and nomen as role type). Joint authors should be entered in the Group window the same way.

Example of author data entry: *Genus species* Pav. ex Lindl.

Pub Author: Lindl.
Ascribed Author: Pav.
Pub. Author (Basionym): None
Ascr. Author (Basionym): None

The *Taxonomic Names Browser* is very useful for seeing the hierarchy assigned to any taxon. Put in a genus name (do not use “%” or you will be booted out of the system) and **Find (F1)** to get the hierarchy. You will see all the species, etc. and some common names, not all. A common name or part of a common name can be searched.

Named Hybrids

Indicate a named hybrid in the Verified Taxonomic Window by checking the hybrid pick box. If the parents of a named hybrid are known enter each separately in the Named Hybrid Parent window from the Taxonomy Tasks menu. Do not add hybrid parents of a named hybrid in the Accession window. If this is done in error however, the parents can be deleted from the Accession window by clearing the field and typing in a space on the Accessions screen. There is a dummy record for male and female hybrid taxons behind the scene.   A space will put the dummy back into those fields so that the named hybrid in the taxon field will be used correctly in current location, voucher, etc.

Taxonomic Name Changes

If an accession has been re-determined, do the change in the *Accession* window. The new name may have to be added in the windows in Verified Taxonomic Name if it is new to SAGE. Use the *Taxon History* window to record the source of the change and the date made. You will have to cut and paste the source and date into individual accessions in the *Taxon History* window (see note above on *Person Name Role* for entering the person who made the determination). The name change will also have to be made in the Plant Attributes window. SAGE does not automatically update the names there.

Changes in Synonymy

If a taxon has been lumped into another taxon:

1) if necessary, add the new taxon to *Verified Taxonomic Name*

2) update the name in each accession (done this way, it will include the change in *Taxon History*). If you were to do a global name change in *Verified Taxonomic Name* instead, there would be no information in *Taxon History*. Each accession should be recorded on a plant record change form to facilitate updating the Accession Books.

3) in *Taxon History* indicate the new term is “valid term” by changing the modifier. Note the date, who made the change, and the reference. Change the modifier to “synonym”

on the old term and indicate the reference. Do not change the date or made by name in order to preserve the order and time of changes to the accession. If the synonym is the 'received as' name, indicate this in the remarks field.

4) find all other names of the taxon in SAGE requiring a change to reflect synonymy and do the same.

5) retain the name in *Verified Taxonomic Name* but deselect the "valid catalog term flag". **NOTE**: If other accessions of the invalid name have not been changed in accession, and the valid catalog term flag has been deselected, the record will not print correctly.

6) add a new record for the old and new names in the synonymy window.

7) when changing a name due to synonymy and the plant is a rare one, be sure to also change the name in Plant Attributes.

<u>Changes resulting from determinations or redeterminations</u>

1) if necessary, add the new taxon to *Verified Taxonomic Name*
2) update the name in the accession window
3) go to the *Taxon History* window and indicate *determination* in the modifier box, and add date, made by, reference as appropriate. Indicate *received as* in the modifier box in the old record.
4) If there are no other accessions of the original taxon, mark it dead *in Verified Taxonomic Name*. Keep the valid term box checked unless the name is old and currently in synonymy.

If there are no other accessions of the "old name", mark the name dead in Verified Taxonomic Name. In this way, the "old name" will not appear in the web browser names list. If the "old name" is a synonym however do not mark it dead but rather uncheck the valid term box.

<u>Procedure for making spelling corrections to a taxon name:</u>

1. If appropriate, add a new, correct bioname element in the *Taxonomic Name Element* window. Sometimes in case of a spelling error, you will be able to simply change the spelling of the bioname element. Before changing any bioname element, check in *Verified Taxonomic Name* to be sure that no other genus uses that spelling as a bioname element. If the element is used in another genus, then add the new spelling to the bioname element window and then to the genus in *Verified Taxonomic Name.*

2. Add the new, correct bioname element into the taxon hierarchy in *the Verified Taxonomic Name* window. Start at the top of the hierarchy.

3. Change the accession record so that it uses the new, correct taxon name.

4. Fix the *Taxon History* (see below – Changes in Synonymy or Determination)

5. Delete the old, incorrect bioname element and any incorrect parts of the taxon hierarchy. (Do this only if the name is incorrect Do not do this if the name is in synonymy or if the accession has been redetermined.) Start from the bottom of the hierarchy in the *Verified Taxonomic Name* window.

6. Delete the old, incorrect bioname element in the *Taxonomic Name Element* window (only if it is not used in another genus)

To change a specific epithet to a variety level name:

1. Add the new specific epithet to the genus, highlight and copy the full taxon name
2. Clear the record. Paste the new genus and species into Parent Taxon, the new varietal name in bioname element and enter the rank and author. Click the appropriate boxes at the bottom of the window including valid term box.
3. -Go back to *Accession Window* and make changes to all the names dead or alive in SAGE. Keep a record to on a Plant Record Change form to facilitate making changes in the accession books.
4. -. Use *Taxon History* for each accession to give reason for change (synonym would be appropriate)
5. Enter a record in the *Synonym Window. Keep the valid term box checked on the specific epithet even though it is now a synonym. If it is unchecked, the varietal name will not print anywhere and will not show up in the browser. Sage does not allow subspecific epithets attached to invalid names.*

Verifications

1) indicate verification in the modifier box
2) add date and made by information
3) go to prior determination record (which should be the same taxon) and change the No to Yes. * Note: each time a new history record is made, the prior record's Acceped ID window is automatically changed to NO. In the case of a verification this window should remain YES.

Modifier Box in Taxon History window

Modifiers used are: Determination
Verification
Hybrid
Synonym (use this for the synonym – the current term gets no modifier)
Received as

Common Names

Go to the *Common Names* window. Enter the common name and **Find (F1)**, or enter the taxonomic name and **Find (F1)** (you can enter the genus with %).

If a name is new, it needs to be entered in the *Taxonomic Name Element* window as a common name, and then in the *Common Names* window. If a new taxon needs a common name that is already in SAGE but under a different taxon, enter the new taxon and **Add (F3)**.

To designate the preferred common name if the taxon has more than one common name, use the pick box to indicate preferred, secondary or rejected. - to put in date, horticulturist's name, reference if any, and collection name with common name in remarks field.????

Current Location Window

For New Accessions the section must be added to NURS. Backspace the S in NURS and substitute a %. Delete the section and use a % or the first part of the section with a % (Med%) and do an update. **2007 - a pick list appears. Chose the appropriate section and hit accept.** Check the rarity of the taxon and add to the Plant Attributes window and make sure that the plant status box in checked in accession.

Adding new locations for plants – planting out, moving, deads, revive

Note: Changes will be reflected in the *Accession History* window.

Planting Out

Go to *Current Location* screen
Put in accession number and **Find (F1)**
Change action date, action code "planted out", and bed #. Leave section blank or use "%" (it will automatically fill with the correct section). If you do not leave the section empty or use a "%", you will get the message Unknown Bed# even though the bed is in SAGE. Both bed and section must be in SAGE in order to use them.

If the plant is being planted out from the nursery and NURS is reflected in the lower list of locations field, choose that entry, change bed #, etc. and process it as an **Update (F5)**.

If NURS is not reflected as a location in the lower list of locations field, change the bed #, etc. and process it as an **Add (F3).**

Changes in locations will be reflected in the *Accession History* window. When you do an add, the From Bed in the *Accession History* window will default to NURS.

Labels may be ordered at the same time by indicating yes, the size and number in the label fields.

Moving

Use the same procedure as planting out. The action code will be "moved". Process it as an **Update (F5)**.

If a plant is moved from one bed into two or more different beds, use **Update (F5)** for the first move and **Add (F3)** for the others. Then go to *Accession History* window and update the default NURS to the original bed for the additional beds (e.g., if you move something from Bed 363 to 374 and 376, you will need to correct the "from" bed in Accession History from NURS to 363 for bed 376).

Recording Dead Plants

In *Current Location* – do a **Find (F1)** on the accession number.
Highlight the appropriate bed location in the lower list of locations field.
Change the action date and set action code to "dead". Process it as an **Update (F5)**.

Label Requests

Before new label requests are entered, click the *Update Label Request* button to set all label flags to "No".

New Label requests can be done from the *Current Location* window by highlighting the bed location for which they are needed, choosing yes for label needed, size, etc. Then the Business Objects report ("labels) must be run to get a label order printed.

Only use the action code *Label Request* when there is a location for the plant.

If a label is requested for a plant not appearing in *Current Location* check to see if the plant was previously deaded. If so "revive" the plant and use the "planted out" action code, indicate labels requested, and indicate "Found in bed" in the comments field. Add the record. Cross out dead stamp in accession book for revived accessions.

Theft

Indicating a theft does not remove the record from the current location window. To do that indicate a theft and update, and then dead the record using the same action date.

Revive

To revive dead plants, indicate Revive in the action code box and do an Add. Check the rarity of the taxon and add to the Plant Attributes window, and make sure that the plant status box is checked in accession.

Vouchers

The *Voucher* window is used to record the existence of a herbarium voucher of a particular accession in a particular herbarium (institution).

If only one person is responsible for making the voucher, enter their name in the *Person, Person Name, Person Name Role* windows. -If more than one person made the voucher do the same in *Group, Group Name*, *Group Name Role* and *Group Membership*.

If the voucher was made by a committee (i.e., you want to have more than one person listed in the Vouchered By field), then you should enter all of the relevant people in *Group, Group Name*, *Group Name Role* and *Group Membership* windows. [From Mike: as committees (with memberships tied to people of course)].

The *Voucher Institution* window is used to record the acronym of the herbarium housing the voucher and it's full name. Any changes to the acronym must be made in the *Voucher* window before being deleted in the *Voucher Institution* window. Eventually these will be moved to *Organization*.

To print voucher label(s), record the voucher information (see above) and **Add (F3).** Queue a label(s) in the V*ouche*r window. Go to the *Voucher Label* window and edit each label as necessary. When you want to print everything queued up, select the print button. You must enter '**sage**' in the last box on the print menu and then click OK.

GhostView will come up giving a preview to the label(s). Put our acid-free paper in the bottom tray of the HP Laserjet 5m. Use the File pull-down menu in GhostView and select print. You will get a pop-up printer window asking for a printer name. Enter the name, just click on the "okay" button. After it has printed, use the File pull-down menu to exit GhostView. In the *Voucher Label* window click the SMASH data button to send data to the herbarium and then select "delete queue" in the *Voucher Label* window.

Sheet Numbers

Herbarium sheet numbers may be added manually by using the Smash-Sage window. Add the accession number and sheet number only and do an Add. The window will fill with appropriate information or give a pick list if more than one voucher exists in the system.

Person, Group & Organization Tasks:

Person - identifies the person, birth date, source

Person Name - this is where the name type (*pref, alias*, etc.) is established

pref. = last name, first name
alias = first name last name
abbrev. = last name, first initial

Person Name Role - where you establish a *name type* with a *role* (*alias* name type with *requestor role* or *pref* name type with *author role*). Note: the appropriate role for someone making a taxonomic change is *taxonomy* with the *preferred* name type. This will allow you to use the person in the *Taxon History Window*.

Collectors should be entered under the Collector heading. They may also be added in Person for reference, but the collector field in Accession will be looking for and entry under the Collector heading.

Group works the same as Person and is used for - groups in other roles.

Group Name: the *pref* name will be automatic. If you want an *alias*, assign it here.

Group Name Role - assign the *role* for a group name type

Group Membership – where individuals (person names) are tied to a group. This is not necessary but a good idea if you want to retrieve all accessions by that collector.

Reports in Business Objects

Use Format Sort menu to establish sort in any report. You can have one to many fields in sort and change the sort priority by moving desired field to top of sort order.

Format Sort Custom can be used to get accessions in a particular order (not alphanumeric).

Send open report files to the Repository if changed. Alert colleagues to import the new version.

To develop a list of accessions without vouchers by bed:

1. First report list live accessions (don't run)
2. Use Operator (to left of "?") U=union, ∩=intersect (includes things in both places)
3. Create query 2 (accnmb dead date = 0)

Action codes:

0 = dead
1 = planted out
2 = moved
3 = label request

4 = theft
5 = other
6 = revived

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PROPAGATION

Start with the **Propagation Table** window. Fill in all required (red) boxes. For cuttings, add information regarding cutting type ie: ½ hard, tips, etc. in the comments field, and for seeds any information about seed type or condition. ADD. Before going to any other window, do a FIND. Note the propagation number and date of propagation for use in the next windows.

Next fill in the **Propagation History** window. There may be pretreatments for seed and cuttings. Pretreatments are done before the material is either "started" in pots for seed or "potted" in pots or flats for cuttings. When seed is "started" the starting location is considered a treatment and should be entered in the treatment window. When a pot is changed, the location is still considered a treatment. Do not enter an additional propagation history record of change location unless this occurs later in the propagation ie: after coming out of cold stratification from the refrigerator and going into the lath house.

For a propagation history record of "results", calculate the percent success from the number started and the number either in the results column on the propagation card or in the number potted up at a later date. The exact date of the resulting propagules is rarely given. Enter the date as a range from the start of the propagation or the date when the propagules leave cold or warm stratification, etc. to the next potting date ie: Jan. 4, 2004 to May 16, 2004, unless a date is given on the card for results.

NOTE: After entering a result, you must enter 999 to erase the percent success field for the propagation history records that follow. To erase a propagule count, enter 0 and update. To erase pot size and type enter N/A and update.

Treatment - the treatment window must have the same propagation number as the propagation history window. The propagation activity sequence number field in treatment, refers to the sequence number on the propagation history window. Each treatment for that propagation history record will have its own sequence number. After entering a propagation history record, do a FIND and then click the treatment button. You will get a blank treatment record. Enter the propagation number, look back for the sequence number of the history record, and enter 1 for the first treatment and do an add. For another treatment, change the #1 to a #2 and enter the new treatment and add. If you look back at the Propagation Summary, the treatments should appear in the appropriate order after the history record to which they belong.

Pot size is entered as **4” pot**. If the word pot is to appear in the summary, it must appear here. The pot type is self explanatory, ie: peat pot (in which case just **4”** would be chosen in pot size, not **4” pot**), flat, clay, plastic, etc. If you enter 4” pot with peat pot, the summary will show 4” peat pot pot, or if you enter 4” pot with flat, the summary will show 4” flat pot. So it is important to choose the correct pot size terms depending on what is to be conveyed in the summary.
